

Carex vallicola (Dewey)
valley sedge
Cyperaceae (Sedge Family)

Status: State Sensitive
Rank: G5S1

General Description: A small to medium-sized sedge with stems 6 to 16 inches (15 to 40 cm) tall and clustered on a short, stout rhizome. The leaves are grouped near the base. One-inch (25 cm) long spikes form a narrow, cylindrical head with male flowers at the tips of the spikes and the female flowers below. The scales of the perigynia are pale. The perigynia are greenish and sometimes copper-tinged, abruptly contracting into a short beak that is broadly rounded. The achene is flattened.

Identification Tips: The spikes of *C. vallicola* are small, few-flowered, and sessile atop a narrow, cylindrical head. The perigynia are broadly rounded so that the marginal nerves are displaced to the ventral (inner) side. These displaced perigynium margins, along with the perigynia that are flat on one side and convex on the other, are two useful diagnostic characteristics. Its smaller size and generally leaning culms distinguish it from *C. hoodii*. Identification of *Carex* species requires consideration of technical features and at least a hand lens magnification.

Phenology: Flowers from April through July.

Range: The species is known from northeastern Washington and eastern Oregon south to Wyoming, California, and Utah. It has been reported as far south as Hidalgo, Mexico. In Washington, the species is mostly limited to an area 10 miles wide (east to west) and 22 miles long in Okanogan County.

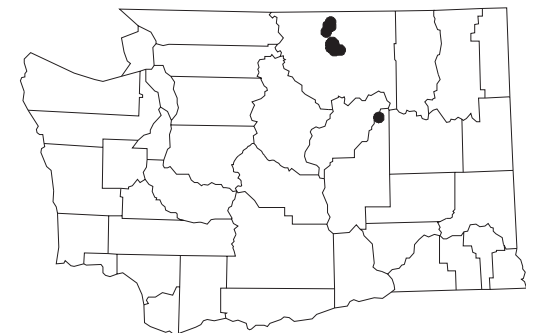
Habitat: Moist or moderately dry slopes from the foothills to moderate elevations in the mountains from 4300 to 6800 feet (1400 to 2300 m), often with sagebrush or aspen. *Carex hoodii* is *C. vallicola*'s most frequent sedge associate in the sagebrush habitats in which it occurs. In Washington, the species is typically found in treeless communities where tall sagebrush (*Artemisia tridentata*) is abundant at elevations usually dominated by subalpine fir (*Abies lasiocarpa*) and Douglas fir (*Psuedotsuga menziesii*). Occasionally, quaking aspen (*Populus tremuloides*) occurs in moist pockets in or adjacent to these communities. Other common associations include yarrow (*Achillea millefolium*), California brome (*Bromus carinatus*), Raynold's sedge

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Known distribution
of *Carex vallicola*
in Washington



● Current (1980+)
○ Historic (older than 1980)

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Photo by Clay Antieau

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(*Carex raynoldsii*), Nuttall larkspur (*Delphinium nuttallianum*), three-nerve fleabane (*Erigeron subtrinervis*), blue stickseed (*Hackelia micrantha*), Pursh's silky lupine (*Lupinus sericeus*), and yellow beardtongue (*Penstemon confertus*).

Ecology: *Carex vallicola* tends to occur in moist, concave microsites with gravelly loam where sagebrush is thickest.

State Status Comments: There are 10 current locations in Washington state. Almost all of the known populations grow within six miles of Salmon Meadows Campground and within a mile of Muckamuck Mountain in Okanogan County. All occurrences are on National Forest lands.

Inventory Needs: Inventory of all grazing allotments on forest land is needed, since the species occurs in habitats frequently grazed by cattle.

Threats and Management Concerns: *Carex vallicola* is thought to be somewhat tolerant of moderate levels of grazing. However, the level at which overgrazing becomes detrimental to the species is unknown. Recreational trail use also poses a threat to the species. The use of two-, three-, or four-wheeled recreational vehicles should be restricted. The species' extremely limited distribution in Washington state should be considered.

References:

Arnett, J., Bjork, C. 1996. Species conservation strategy for *Carex vallicola* Dewey in Washington. Washington Native Plant Society and Okanogan National Forest.

Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1964. *Vascular Plants of the Pacific Northwest, Part 1: Vascular Cryptogams Gymnosperms and Monocotyledons*. University of Washington Press, Seattle. 914 pp.